KURTIS & ASSOCIATES, P.C.

SUITE 200 1000 POTOMAC STREET, N.W. WASHINGTON, D.C. 20007

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August 1, 2003

Via Electronic Submission

Marlene H. Dortch, Secretary Federal Communications Commission 445 12th Street, SW Washington, DC 20554 David Solomon, Chief Enforcement Bureau Federal Communications Commission 445 12th Street, SW Washington, D.C. 20554

John Muleta, Chief Wireless Telecommunications Bureau Federal Communications Commission 445 12th Street, SW Washington, DC 20554

Re: Missouri RSA No. 7 Limited Partnership d/b/a Mid-Missouri Cellular

E911 Interim Report

In the Matter of Revision of the Commissions Rules to Ensure Compatibility

With Enhanced 911 Emergency Calling Systems

CC Docket No. 94-102

Dear Ms. Dortch:

On behalf of Missouri RSA No. 7 Limited Partnership d/b/a Mid-Missouri Cellular ("Mid-Missouri Cellular") we hereby submit its report on the status of its implementation of E911 services. Mid-Missouri Cellular is a Tier III carrier as defined in *Revision of the Commission=s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, Order to Stay (rel. July 26, 2002), FCC 02-210(2002)(ANon-Nationwide Carrier Order"). This report is submitted in compliance with the terms of the *Non-Nationwide Carrier Order*.

If you have any questions or require additional information with respect to the Interim Report, please do not hesitate to call.

Best regards,

/S/ Joshua P. Zeldis

Joshua P. Zeldis

Enclosures

cc: Qualex International (FCC Copy Contractor)

KURTIS & ASSOCIATES, P.C.

SUITE 200 1000 POTOMAC STREET, N.W. WASHINGTON, D.C. 20007

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Report to the Federal Communications Commission on Carrier Efforts Toward Attaining
Wireless Enhanced 911 Deployment and Implementation, as Provided by CC Docket No.
94-102, In the Matter of Revision of the Commission's Rules To Ensure Compatibility with
Enhanced 911 Emergency Calling Systems

Missouri RSA No. 7 Limited Partnership d/b/a Mid-Missouri Cellular ("MMC"), by its attorneys, pursuant to the Federal Communications Commission's ("Commission" or "FCC") *Non-Nationwide Carrier Order*¹ and *Public Notice*² in CC Docket No. 94-102, hereby files an Interim Report, detailing its efforts towards attaining the benchmarks established in the *Non-Nationwide Carrier Order* and with other applicable provisions of the wireless Enhanced 911 ("E911") rules.

In its *Non-Nationwide Carrier Order*, the Commission granted a temporary stay to select carriers from the application of certain specific E911 Phase II deadlines set forth in section 20.18(f) and (g) of the Commission's rules.³ In order to assist in monitoring Tier III carriers' E911 deployment progress, the Commission required that Tier III carriers file an Interim Report to provide specific, verifiable information to allow the Commission to track compliance with each of the Commission's benchmarks. In compliance with the *Non-Nationwide Carrier Order*, MMC now files this instant report with the Commission.

I. Carrier Background

MMC provides analog and digital TDMA CMRS wireless service in the Missouri 7 - Sedalia RSA and a small rural portion of the Kansas City MSA.⁴ As set forth below, MMC intends to migrate its network to CDMA technology in part, to enable it to implement a handset-based E911 Phase II Solution. MMC is working to complete its CDMA overbuild during the first quarter of 2004.

¹ In the Matter of Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems, *Non-Nationwide Carrier Order*, CC Docket No. 94-102, Order to Stay (rel. July 26, 2002), ("*Non-Nationwide Carrier Order*").

² Wireless Telecommunications Bureau Provides Further Guidance on Interim Report Filings by Small Sized Carrier, Public Notice, CC Docket No. 94-102, (rel. June 30, 2003) ("Public Notice").

³ MMC was identified as a Tier III carrier and was included in the list of non-nationwide carriers granted a temporary stay. *See*, *Non-Nationwide Carrier Order*, ¶ 23 and Appendix A.

⁴ Stations KNKN595 (CMA510B) and KNKR207 (CMA024B-2).

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II. <u>E911 Deployment</u>

A. Phase I

MMC has only received an E911 Phase I request from the "Ray County 9-1-1-Center" ("Ray County PSAP"). That request was a consolidated Phase I/Phase II request. MMC served a written request for documentation on the Ray County PSAP within 15 days of receipt of the PSAP request, however, as of yet, Ray County has yet to provide that documentation. Therefore, under 47 CFR § 20.18(j)(3), the six-month period for Phase I implementation is tolled until the Ray County PSAP provides MMC the requested documentation. MMC intends to deploy E911 Phase I capabilities in conjunction with its migration to the CDMA technology in early 2004.

MMC responded to that request seeking to work with the Ray County PSAP to address numerous issues presented by that request. A copy of MMC's formal written letter to the PSAP, which includes MMC's written request for documentation, is appended hereto. Also appended hereto is Ray County written response. Among other issues presented, MMC questioned the PSAP request that MMC connect with the selective router designated by the Ray County PSAP. Ray County PSAP had apparently decided to integrate its E911 services with the greater Kansas City metropolitan area. As a result, that PSAP has tied its facilities to the selective router located in Lenexa Kansas. This PSAP location is a significant distance from Ray County and, sending E911 Phase I information to that selective router would result in significant increased operational costs to MMC. Moreover, since Ray County PSAP is the *only* PSAP tied to that router that is located in the MMC market, 100% of the E911 calls which MMC would send to that router would, in turn, be sent back to the Ray County PSAP. The Ray County PSAP is located within a few miles of MMC's existing facilities in Ray County and MMC could deliver all Ray County PSAP calls directly to the PSAP at substantially lower costs.

MMC has not sought formal waiver of this requirement as of this point in time inasmuch as the Ray County PSAP request has been tolled. At such time as the requisite documentation is provided which re-starts the 6 month implementation timeline, MMC will seek Commission relief of this formal routing request.

B. Phase II Requests

The Ray County PSAP request was a combined Phase I/Phase II request. As with the Ray County PSAP's Phase I request, the six-month period for Phase II implementation has been tolled pending receipt of the requested documentation request from the Ray County PSAP.

C. E911 Equipment Order/Installation Status

MMC intends to deploy a handset-based E911 Phase II solution to fulfill the Commission's E911 mandate. MMC has selected a handset-based solution because MMC has been unable to find a single network solution vendor that would commit to achieving the Commission's E911 Phase II accuracy standards by any economically feasible means using MMC's existing cell sites and antenna configurations. After exploring alternative network-based solutions, MMC believes that a handset-based solution will afford it a greater level of locational

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accuracy although MMC does not currently believe that this level of accuracy will satisfy the Commission rules.

D. Handset Sales

MMC has not initiated the sale of ALI-capable handsets. As the Commission is well aware, the large-carrier decision to migrate away from TDMA technology as a network protocol, there appear to be no handset manufacturers that will provide an ALI-capable TDMA handset. As a result, absent the production of a TDMA-capable handset, Mid-Missouri is now compelled to replace its entire digital network with the CDMA protocol for which ALI handsets are available. Moreover, even when MMC is ready to initiate sale of ALI-capable handsets, MMC is unsure that CDMA ALI-capable handsets will be available in sufficient quantities to meet the various Commission benchmarks. The Commission itself has acknowledged that Tier III carriers like MMC are unable to generate sufficient handset demand to warrant direct customer relationships with manufacturers.⁵ As a result, MMC will have no choice but to deal with wholesalers, distributors and other intermediaries who have no specific commitment to accommodating demand in a small, rural market like Mid-Missouri's and may have powerful economic incentives to accord such demand the lowest of priorities assuming they commit to accommodating that demand at all.

MMC is in the unfortunate position of looking to implement a handset-based solution but presently operating a network that cannot support the only handsets for which the ALI technology is available. Accordingly MMC cannot begin selling ALI-capable handsets by September 1, 2003 or meet the 25% new activation deadline of November 30, 2003 (even assuming the availability of a sufficient quantity of CDMA ALI-capable handsets by that date) because those handsets are not compatible with MMC's existing digital technology. MMC will be filing a formal waiver request of those deadlines shortly. Assuming the availability of CDMA ALI-capable handsets, MMC intends to initiate the sale of ALI-capable handsets once its migration to CDMA is complete. At that time, MMC will endeavor to sell ALI-capable handsets, near exclusively (assuming it is able to obtain sufficient quantities to enable it to do so) in an effort to satisfy its May 31, 2004 and November 30, 2004 requirements and maximize its handset penetration obligations by the December 31, 2005 deadline.

⁵ See Non-Nationwide Carrier Order, ¶ 20 ("This approach recognizes that wireless carriers with relatively small customer bases are at a disadvantage as compared with the large nationwide carriers in acquiring location technologies, network components, and handsets needed to comply with our regulations."); see also, id. ¶ 10 (" . . . The record demonstrates that non-nationwide CMRS carriers have much less ability than the nationwide CMRS carriers to obtain the specific vendor commitments necessary to deploy E911 immediately . . .").

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E. Difficulties in Implementation

As discussed above, MMC has had great difficulty in obtaining an E911 Phase II solution that will work within its network. In attempting to find an E911 Phase II solution that would meet the Commission's accuracy standards, MMC has explored several handset-base solutions. MMC has found that it would be uneconomical to deploy a network based solution that had any realistic hope of meeting the FCC's accuracy requirements because the spacing of base stations and network elements required to provide wireless service over vast expanses of rural territory is inadequate for triangulating the "XY" coordinates of E911 callers with the required level of accuracy. Moreover, the associated costs with upgrading antenna systems and adding multiple additional cell sites to facilitate triangulation, would be financially impossible for MMC Therefore, MMC sees no realistic alternative but to utilize a handset-based solution. However, as discussed above, MMC is unable to find a single handset manufacturer that would provide ALI-capable TDMA handsets and therefore must now go through of the process of migrating its entire network from TDMA to CDMA technology, at significant cost, in order to be able to deploy ALI-capable handsets. Given MMC's low number of subscribers, the forced upgrade imposes an economic hardship on both MMC and its subscribers.

Despite all of its efforts to timely deploy a handset-based Phase II solution, MMC is not confident that it will be able to achieve the Commission's Phase II accuracy standards, even utilizing the ALI-capable handsets once the migration to CDMA is complete and E911 Phase II service is deployed. This concern centers around the fact that once the handset loses "site" of the positioning satellites, the handset-based solution reverts to a network-assisted mode. Accordingly, MMC, as a member of the Tier III Coalition for Wireless E911, has petitioned the Commission to forbear, until December 31, 2005, from enforcing the quantitative accuracy standards set forth in Section 20.18(h)(1) and (2) of the Rules.⁶

⁶ Petition Pursuant to 47 U.S.C. §160(c) for Forbearance from E911 Accuracy Standards Imposed on Tier III Carriers for Locating Wireless Subscribers Under Rule Section 20.18(h), WT Docket No. 02-377 (November 20, 2002).

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III. Conclusion

As demonstrated above, notwithstanding the fact that the six-month implementation schedule in response to the only PSAP request received by MMC to date has been tolled, MMC has proceeded with exploring E911 Phase II solutions and is now in the process of beginning to overbuild its entire digital network, in part, to enable it to utilize ALI-capable handsets. This effort has come at the expense of significant personnel and financial resources. MMC will continue to work in a good faith effort to meet its E911 obligations in a timely manner to the greatest extent feasible.

Respectfully Submitted,

Missouri RSA No. 7 Limited Partnership d/b/a Mid Missouri Cellular

Dated: August 1, 2003 /s/ Joshua P. Zeldis

Michael K. Kurtis Joshua P. Zeldis

Its Attorneys

Kurtis & Associates, P.C. 1000 Potomac Street, N.W. Suite 200 Washington, D.C. 20007 (202) 328-4500

AFFIDAVIT

STATE OF Missouri COUNTY OF Pettis	: : TO WIT: -:
RSA No. 7 Limited Partnership d/b/a	, am familiar with the facts as set forth in ployment and Implementation Status Report of Missouri a Mid Missouri Cellular and declare, under penalty of erein are true, complete and correct to the best of my
	Name: Levin Dawson Title: President Missouri RSA No. 7 Limited Partnership d/b/a Mid Missouri Cellular
Public of said State, personally appears (or satisfactorily proven) to be the personal proven.	day of July, 2003, before me, the undersigned Notary day of July, 2003, before me, the undersigned Notary known to me on whose name is subscribed to the within instrument, and same for the purposes therein contained.
WITNESS my hand and Notaria	al Seal.
STEPHANIE CARPENTER Notary Public - Notary Seal STATE OF MISSOURI Pettis County My Commission Expires: May 8, 2005	Marie Apolella otary Public
My Commission Expires:	

KURTIS & ASSOCIATES, P.C.

SUITE 200 1000 POTOMAC STREET, N.W. WASHINGTON, D.C. 20007

(202) 328-4500 TELECOPIER (202) 328-1231

October 14, 2002

Via Facsimile and First Class US Mail

Ms. Saralyn Doty Mid-America Regional Council 600 Broadway, Suite 300 Kansas City, Missouri 64105-1554

Re: Mid-Missouri Cellular E911 Phase II Request

Dear Ms. Doty:

This firm serves as special counsel to Missouri RSA No. 7 Limited Partnership dba Mid-Missouri Cellular ("MMC") with respect to matters before the Federal Communications Commission ("FCC"). In that capacity, I participated in a conference call last week with Mr. Greg Ballentine and you from the Mid-America Regional Council ("MARC") and Ms. Kathie Zentgraf of MMC regarding your October 8, 2002 request for MMC to provide E911 Phase I and Phase II service in Ray County, Missouri.

From those discussions, we understand that MARC is a regional council that is providing consolidated coordination for E911 services for the greater Kansas City metropolitan area. Ray County is a part of that area. Indeed, with the exception of MMC, we believe that all other commercial mobile radio service ("CMRS") providers that are licensed to provide service in Ray County, are also licensed to provide service throughout the greater Kansas City metropolitan area.

In sharp contrast, MMC operates a rural-only network and is not licensed to provide CMRS to any other part of the greater Kansas City metropolitan area. Specifically, the MMC network operates exclusively in Lafayette, Saline, Howard, Cooper, Pettis, Johnson and Ray Counties in Missouri. MMC has a subscriber base of approximately 100 customers in Ray County.

¹ It should be noted that MMC is also licensed to serve a small portion of Cass County, Missouri. However, that geographic area actually receives CMRS as a part of the Cingular Wireless network, under contract between MMC and Cingular. Accordingly, E911 calls in that area are handled by the Cingular network and not the MMC network.

The MMC network presently operates using a TDMA digital protocol. That technology was deployed in order to maintain compatibility with MMC's then-major roaming partner, Cingular Wireless (fka Southwestern Bell Wireless). Cingular and AT&T were, by far, the two largest carriers utilizing the TDMA protocol.

Approximately 18 months ago, both Cingular and AT&T announced that they would be migrating away from the TDMA protocol. As a result, all major network and handset equipment vendors announced a discontinuation of development of new features and hardware for that protocol. Unfortunately, that included the plans to develop an automatic location identifier ("ALI") handset based on the TDMA protocol. Accordingly, the only means with which a TDMA network can provide E911 Phase II service is through a network-based technology.

Network-based location systems pin-point the subscriber by using received signals from multiple antenna sites in order to triangulate on the physical position of the subscriber. The accuracy of these networks increases as the number of antennas per cell site and the number of cell sites providing service to a given area increase. The MMC Ray County facilities are presently limited to two omni-directional cell sites. Indeed, the entire MMC network is comprised exclusively of omni-directional cell sites with minimal overlap in coverage; sufficient to provide CMRS service but not sufficient to allow triangulation of a mobile position using a network-based E911 solution. Accordingly, MMC has yet to be able to find an E911 network-based solution vendor that will commit to meeting the FCC's accuracy requirements in this type of rural environment. Accordingly, the only E911 Phase II technology currently available to meet the FCC accuracy requirements appears to be a handset-based solution. With the unavailability of TDMA handsets, the use of a handset-based solution will require the replacement of the entire MMC digital network with a new digital protocol for which ALI handsets will be available.

MMC has been actively pursing this alternative. Unfortunately, the cost to migrate the MMC network would be approximately \$3 million. Significantly, as of this point in time, Ray County is the *only* PSAP request which MMC has received for E911 Phase II service. However, because of the large expenditures needed to migrate the MMC switching center in order to be able to host the alternate digital technology, the cost to migrate only the two Ray County cell sites would still approach \$2 million. MMC would therefore be facing a capital expenditure of nearly \$20,000 per Ray County subscriber to implement the alternative digital technology in Ray County only. Moreover, since this functionality is embedded in the handset, Ray County subscribers would need to be provided with handsets which were incompatible with the rest of the MMC network in order to utilize the E911 Phase II location capabilities of the system within Ray County.

MMC is categorized as a Tier III carrier by the FCC.² As such, it is obligated to provide E911 Phase II service to 50% of its coverage area within the PSAP's service area by September 1, 2003 and 100% of the PSAP's service area by September 1, 2004. However, there is no obligation on the part of the carrier to replace existing non-ALI capable handsets with new handsets. Rather, the carrier's obligation is only to begin selling ALI-capable handsets by September 1 2003, and to ensure that all new handset sales are ALI-capable by November 30, 2004. Tier III carriers have until December 31, 2005 in which to ensure 95% penetration of its subscriber base with ALI-capable handsets.

In light of the foregoing, MMC respectfully submits that there would be little practical benefit realized from seeking to require MMC to implement Phase II capabilities in Ray County at this time. Accordingly, MMC requests that MARC withdraw its request that MMC proceed at this time to be E911 Phase II compliant, in favor of allowing MMC to work with MARC as well as the other PSAPs serving the remaining counties in the MMC coverage area, to enable MMC to delay the deployment of E911 Phase II capabilities until the PSAPs serving the balance of the MMC counties are ready to also support that service. While the cost of implementing E911 Phase II will still be substantial, at that point in time MMC will at least be able to spread those costs across its entire subscriber base and ensure that the entire MMC network remains compatible from a digital protocol standpoint. Moreover, MMC understands that next generation network-based solutions are presently in development which promise to increase the accuracy achievable in a rural environment. If that level of accuracy proves able to satisfy FCC requirements, then MMC would be able to provide E911 Phase II service from a network-based platform that would be not only significantly less expensive to deploy, but would have the advantage of making this important service immediately available to all subscribers and roamers, and not just those who replace their handsets.

Since the MMC network is not a part of a the greater Kansas City metropolitan area that the MARC E911 network is designed to serve, and since MMC serves such a small subscriber base in only one of the counties involved in the MARC network, we respectfully request that MARC fully consider the impact of its request on MMC in light of the reality that handset deployment rules will, in fact, make the date by which meaningful E911 Phase II service would be available, much further into the future than the date which the current MARC request would trigger for the network to be made E911 Phase II capable.

The second part of your letter deals with the decision to place the MARC selective router in Lenexa, Kansas, a southwestern suburb of Kansas City (Ray County is far northeast of Kansas City). While this location no doubt makes economic sense for MARC and is, most likely, economically neutral to the Kansas City based CMRS carriers included in the MARC E911 area, as a rural-only carrier based in Sedalia, Missouri, asking MMC to install and maintain facilities to that selective router location is extremely burdensome for MMC. Significantly, all MMC E911 calls to the MARC

² Order to Stay, in CC Docket No. 94-102 (Rel. July 26, 2002) at paragraph 23.

network will be destined for the Ray County PSAP. Accordingly, the purpose behind sending the calls to the selective router to determine the appropriate PSAP to which to route the call, is unnecessary in this circumstance and requiring MMC to do so would place a substantial burden on MMC.

In order to quantify the impact on MMC, MMC has obtained price quotes for dedicated T1 facilities to route from the MMC network to both the Lenexa, KS selective router and the Ray County PSAP. The recurring monthly price quoted by Southwestern Bell Telephone for the circuit to Lenexa is \$1,727.00 as compared to a monthly recurring cost of \$365.00 for a dedicated T1 to the Ray County PSAP. The *difference* between these circuit costs on an annual basis is \$16,344.

In light of the foregoing, MMC requests that it be allowed to route its E911 traffic directly to the PSAP location. Since all of the traffic sent to the selective router by MMC would be destined for the Ray County PSAP anyway, this would appear to be a reasonable request. If, however, there was some internal reason that MARC wanted the calls to be routed to the Lenexa, KS selective router, we would ask that MMC still be allowed to deliver the calls to the Ray County PSAP. At that location, the MMC inbound traffic could be added to the dedicated T1 which we understand will be maintained between that PSAP location and the Lenexa router site. From our discussions, we understand that, from a capacity standpoint, that dedicated facility will be very lightly utilized. Since this issue relates to both E911 Phase I and Phase II calls, it will need to be addressed even if MARC were to withdraw its request for E911 Phase II service from MMC at this time.

The FCC is well aware of the economic impact on small rural carriers in meeting E911 obligations. While the FCC has generally imposed obligations, such as meeting the PSAP at the selective router, the FCC has recognized that application of its general rules can impose significant burdens on individual carriers. Accordingly the FCC has stated that

Where our rules impose a disproportionate burden on a particular carrier, the carrier may work with the public safety entities involved to mitigate that burden and, if necessary, may seek individual relief from the Commission.³

By this letter, MMC is hoping to work with MARC to mitigate the burdens imposed by its October 8, 2002 letter in advance of seeking formal relief from the FCC.

As a final matter, any obligation on the CMRS carrier is wholly contingent on the relevant PSAP being able to actually receive and process the E911 Phase I and/or Phase II information. We

³ Order on Reconsideration, Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Request of King County, Washington, FCC 02-146, CC Docket No. 94-102, (Rel. July 24, 2002), at paragraph 18.

ask that you provide us with written confirmation of the ability of the Ray County PSAP to receive and process the E911 Phase I and Phase II information at this time.

If you have any questions or require additional information with respect to this matter, please do not hesitate to call.

Very truly yours

Michael K. Kurtis

cc: Ms. Kathie Zentgraf

600 Broadway, Suite 300 Kansas City, Missouri 64105-1554

816/474-4240 816/421-7758 FAX www.marc.org



Michael K. Kurtis Kurtis & Associates, P.C. 1000 Potomac St NW Suite 200 Washington, D.C. 20007

December 4, 2002

Re: Mid-Missouri Cellular Request

Dear Mr. Kurtis;

This correspondence is in response to your letter dated October 14, 2002 regarding Mid-Missouri Cellular and enhanced wireless 9-1-1 deployment in the Kansas City region. I would like to thank you for your time on this issue as we appreciate the challenges affecting small rural wireless carriers. After extensive staff discussion of your request, we believe it is inappropriate for MARC to accept inconsistent levels of emergency telephone service from wireless service providers in the region. Therefore, we are unable to withdraw our request dated October 8, 2002 for Phase I and II service.

Furthermore, a direct connect to the Ray County 9-1-1 Center, as requested in your letter, would lose essential disaster routing capabilities and would require additional equipment at the 9-1-1 center and increased expense to the regional 9-1-1 system. The requested modification to our Phase I and Phase II network design would result in an ineffective operational configuration.

We wish you and Mid-Missouri Cellular the best in your efforts to deploy Phase I and Phase II enhanced wireless 9-1-1 in the Kansas City Metro area. This lifesaving technology is currently being tested by wireless carriers in our region and we expect successful deployment soon. Please feel free to contact me with any additional questions or concerns.

Sincerely,

Saralyn Doty

9-1-1 Administrator